

# Notice of Allowability

Application No.

10/817,213

Examiner

MIA M. THOMAS

Applicant(s)

ARINI ET AL.

Art Unit

2624

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's remarks/arguments received on 02 November 2007.
2. ☒ The allowed claim(s) is/are 1-4 and 6-32.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Mia M Thomas  
Examiner  
Art Unit: 2624

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Dwayne Bentley (Registration Number 45, 947) on 03 March 3, 2008.

The application has been amended as follows:

Title:

Delete the title: "Method of, and Computer Software of, Classification of Cells into Subpopulations".

Replace with the new title: - - Classification of Cells into Subpopulations using Cell Classifying Data- -

Listing of Claims:

At Claim 1, line 7, delete "parameters"; replace with - - parameter - -.

At Claim 1, line 9, delete "parameters"; replace with - - parameter - -.

At Claim 1, line 15, after "set" and before "cells", insert- - of- -.

At Claim 1, lines 16, delete "said"; replace with "a".

At Claim 1, line 20, delete "parameters"; replace with - - parameter - -.

***Response to Amendment***

2. This Office Action is responsive to applications remarks/arguments received on 02 November 2007. Claims 1-35 are pending in the application. Claims 1, 3, 10, 11, 14, 15, 17-21 and 23 have been amended. Claims 5, 33-35 have been cancelled. Claims 1-4 and 6-32 are pending in the application.

***Response to Arguments***

- A. Claim Objections                      Applicant's arguments, see page 11 of 18, filed 11/2/07, with respect to Claim Objections 1.75 d(1) of claims 3, 10, 11, 17, and 19 have been fully considered and are persuasive. The objection of the aforementioned claims has been withdrawn.
- B. Claim Objections                      Applicant's arguments, see page 12 of 18, filed 11/2/07, with respect to Claim Objections 1.75(a) have been fully considered and are persuasive. The objections of claims 18 and 19 has been withdrawn.
- C. Claim Rejections                      35 U.S.C. 101  
Applicants have cancelled Claims 34-35. Applicants have cancelled Claim 34. Examiner withdraws the rejection of these claims.
- D. Claim Rejections                      35 U.S.C. 102/103  
Applicant's arguments, see page 15-17 of 18, filed 11/02/07, with respect to 35 U.S.C 102/103 rejections have been fully considered and are persuasive. The rejection of claims 2-4, 8, 8-13, and 21-23 has been withdrawn. The rejections of Claims 7, 14-20, 24-30,31,and 32 has also been withdrawn.

***Allowable Subject Matter***

2. Claims 1-4 and 6-32 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Amended Claim 1 is drawn to a method of "classifying a first set of cells by a user selected classification method, the process of classifying the first set of cells including classifying said at least one selected first cell into a subpopulation by optimizing dimensionality of feature space and storing first identifying data indicating the subpopulation into which said at least one selected first cell has been classified; deriving cell classifying data for use in classifying a second set of cells into subpopulations from a first parameter set and said first identifying data, and classifying a second set of cells into subpopulations on the basis of one or more measurements based on at least one of the plurality of parameter sets weighted in relation to the plurality of parameter sets.

Specifically, the user selected classification method to weigh any one of the plurality of parameters of the first set of cells in order to classify the first set of cells is unique to this invention.

The closest prior art made of record is with regards to Examiner's U.S.C.103 rejections including the following prior art made of record:

US 2004/0071328

US 7,117,098

US 2006/0127881

US 2004/0071328

Art Unit: 2624

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MIA M. THOMAS whose telephone number is (571)270-1583. The examiner can normally be reached on Monday-Thursday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/Mia M Thomas/*  
Examiner, Art Unit 2624



**BRAVESH M. MEHTA**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600